

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF CALIFORNIA

SPACE SYSTEMS/LORAL, INC.,

No. C 96-03418 SI

Plaintiff,

v.

**ORDER DENYING DEFENDANT'S
MOTIONS FOR SUMMARY JUDGMENT
OF INVALIDITY OF U.S. PATENT NO.
4,537,375**

LOCKHEED MARTIN CORP.,

Defendant.

On February 3, 2006, the Court heard argument on two motions for summary judgment brought by defendant Lockheed Martin Corporation ("Lockheed"). The motions seek to have the patent at issue, U.S. Patent No. 4,537,375 ("the '375 patent"), declared invalid based on two separate provisions of 35 U.S.C. § 102. Having considered the arguments of the parties and the papers submitted, and for good cause appearing, the Court hereby DENIES Lockheed's motions.

BACKGROUND

Plaintiff Space Systems/Loral, Inc. ("SSL") is the owner of the '375 patent. In 1995, SSL filed suit against Lockheed Martin ("Lockheed") for patent infringement. In 1998, SSL amended its complaint to add claims based upon Lockheed's alleged infringement of the '375 patent. Lockheed's infringement of the '375 patent is the only claim remaining in this lawsuit.

The Federal Circuit has described the '375 patent as follows:

Loral is the owner of the '375 patent for an improved method of maintaining the orientation and attitude of a satellite in space. Satellites in orbit around the earth tend to be pulled out of their proper position by the gravitational effects of the sun, earth, and moon. To maintain the requisite position the satellite conducts "station-keeping maneuvers" by firing its thrusters, based upon measurements of its position. However, the station-keeping maneuvers may over-correct or may introduce new errors in position and orientation, and the general procedure has been to conduct a second firing to correct the errors of the first firing. These procedures require fuel, the on-board supply of which

1 is limited, and limits the useful life of the satellite. The '375 patent is directed to a
2 method of reducing the fuel consumption during station-keeping, by enhancing the
efficiency of the corrective procedure.

3 According to the '375 patent, the satellite first estimates the probable correction
4 based on historical data from prior station-keeping maneuvers, and conducts a first firing
of the thrusters based on the estimated correction. This is called the "prebias" step of the
5 modulating response. After the prebias firing, the satellite measures the remaining actual
error in its position, adds the actual error to the historical error, and conducts a second
6 firing. This procedure overall uses less fuel than the prior method whereby a first firing
was calculated to attempt full correction, followed by a second firing. The fuel saving
7 that is achieved extends the life of the satellite.

8 *Space Sys. v. Lockheed Martin Corp.*, 405 F.3d 985, 987 (Fed. Cir. 2005); *see also Space Sys. v.*
9 *Lockheed Martin Corp.*, 271 F.3d 1076, 1077-78 (Fed. Cir. 2001).

10 At a recent point in this litigation – the precise circumstances remain unclear – Lockheed made
the discovery that has led to the instant motions. Lockheed discovered that in 1981 Messerschmitt-
11 Bölkow-Blohm GmbH ("MBB") created a proposal for a new satellite attitude determination and control
12 system ("ADCS") that described a system substantially similar to the invention disclosed by the '375
patent. MBB submitted the proposal ("MBB Proposal") to the Ford Aerospace and Communications
13 Corporation ("FACC"), SSL's predecessor, in connection with FACC's preparation to bid on the
development of a next generation communications satellite for the International Telecommunications
14 Satellite Organization ("INTELSAT"). This new satellite was referred to as INTELSAT VI.¹

15 After discovering the MBB Proposal, Lockheed brought two motions for summary judgment.
16 The first motion claims that the MBB Proposal constituted an offer for sale of the invention disclosed
17 in the '375 patent made over a year before the '375 patent application was filed, and that the patent is
18 therefore invalid under 35 U.S.C. § 102(b). The second motion claims that the MBB Proposal
19 establishes that the inventor listed on the '375 patent – Dr. Fred N. Chan – did not actually invent the
20 invention claimed in the '375 patent, and that the patent is therefore invalid under 35 U.S.C. § 102(f).
21 Although the Court finds there to be substantial merit to both contentions, it must nevertheless deny
22 Lockheed's motions.
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27 ¹FACC had been the primary contractor involved with the development of INTELSAT V, the
predecessor to INTELSAT VI. It appears that FACC submitted a bid to develop INTELSAT VI, but
28 that the contract was ultimately awarded to Hughes Aircraft. It is undisputed that FACC's proposal to
develop INTELSAT VI did not include the design described by the MBB Proposal.

LEGAL STANDARD

Because patents are presumed valid, a defendant must prove invalidity by clear and convincing evidence. *Abbott Laboratories v. Geneva Pharmaceuticals, Inc.*, 182 F.3d 1315, 1318 (Fed. Cir. 1999).

Under 35 U.S.C. § 102(b), a patent is invalid if “the invention was . . . on sale in this country, more than one year prior to the date of the application for patent in the United States.” *Id.* at 1318. To establish invalidity under § 102(b), a defendant must show two things: first, the invention must have been the subject of a commercial offer for sale more than one year before the patent application was filed; second, the invention must have been ready for patenting more than one year before the filing of the application. *Pfaff v. Wells Elecs., Inc.*, 525 U.S. 55, 67 (1998).

Under 35 U.S.C. § 102(f), a patent is invalid if the inventor “did not himself invent the subject matter sought to be patented.” A party seeking to invoke this section must show both “(1) prior conception of the invention by another and (2) communication of that conception to the patentee that is sufficient to enable [him] to construct and successfully operate the invention.” *Int’l Rectifier Corp. v. IXYS Corp.*, 361 F.3d 1363, 1366 (Fed. Cir. 2004) (internal quotation marks omitted).

Summary judgment is proper “if the pleadings, depositions, answers to interrogatories, and admissions on file, together with the affidavits, if any, show that there is no genuine issue as to any material fact and that the moving party is entitled to a judgment as a matter of law.” Fed. R. Civ. P. 56(c). The moving party bears the initial burden of demonstrating the absence of a genuine issue of material fact. *See Celotex Corp. v. Catrett*, 477 U.S. 317, 323 (1986). The moving party, however, has no burden to negate or disprove matters on which the non-moving party will have the burden of proof at trial. The moving party need only point out to the Court that there is an absence of evidence to support the non-moving party’s case. *See id.* at 325.

The burden then shifts to the non-moving party to “designate ‘specific facts showing that there is a genuine issue for trial.’” *Id.* at 324 (quoting Fed. R. Civ. P. 56(e)). To carry this burden, the non-moving party must “do more than simply show that there is some metaphysical doubt as to the material facts.” *Matsushita Electric Industrial Co., Ltd. v. Zenith Radio Corp.*, 475 U.S. 574, 586 (1986). “The mere existence of a scintilla of evidence . . . will be insufficient; there must be evidence on which the jury could reasonably find for the [non-moving party].” *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242,

1 252 (1986).

2 In deciding a motion for summary judgment, the evidence is viewed in the light most favorable
3 to the non-moving party, and all justifiable inferences are to be drawn in its favor. *Id.* at 255.
4 “Credibility determinations, the weighing of the evidence, and the drawing of legitimate inferences from
5 the facts are jury functions, not those of a judge [when she] is ruling on a motion for summary
6 judgment.” *Id.*

8 DISCUSSION

9 Lockheed has brought two related summary judgment motions based on the MBB Proposal.
10 Although the Court finds that Lockheed’s evidence that raises serious questions about the validity of
11 the ’375 patent, it cannot find that summary judgment is appropriate. Rather, because questions remain
12 concerning how a person of ordinary skill in the art would have read the MBB Proposal, and because
13 some credibility issues remain in this lawsuit, this case must proceed beyond the summary judgment
14 stage. Accordingly, the Court DENIES both of Lockheed’s motions.

16 I. On-Sale Bar

17 The timing of the MBB proposal is not in dispute. The ’375 patent application was filed on
18 April 21, 1983, while the MBB Proposal was submitted in May 1981. Thus, if the MBB Proposal
19 constitutes an offer for sale of the invention disclosed by the ’375 patent, the patent is invalid. Given
20 this fact, both parties agree that Lockheed must establish three things to show that the on-sale bar
21 applies. First, it must show that the MBB Proposal constituted a commercial offer for sale. Second, it
22 must show that the MBB Proposal covered all the claims of the patent at issue. Third, Lockheed must
23 show that the ADCS described in the MBB Proposal was ready for patenting at the time of the proposal.

25 A. Offer for Sale

26 For an offer of sale to trigger the on-sale bar, it must “rise[] to the level of a commercial offer
27 for sale, one which the other party could make into a binding contract by simple acceptance.” *Group*
28 *One, Ltd. v. Hallmark Cards, Inc.*, 254 F.3d1041, 1048 (Fed. Cir. 2001). In making this determination,

1 courts should apply “Federal Circuit law, to be analyzed under the law of contracts as generally
 2 understood.” *Id.* at 1047. “As a general proposition, we will look to the Uniform Commercial Code
 3 (‘UCC’) to define whether, as in this case, a communication or series of communications rises to the
 4 level of a commercial offer for sale.” *Id.* “The Supreme Court has also cited the Restatement of
 5 Contracts with approval in the commercial contract law context.” *Id.* at 1048.

6 The Court finds that the MBB Proposal constituted a commercial offer for sale. MBB submitted
 7 its proposal in response to a request from FACC. Under general principles of contract law concerning
 8 subcontractor bids the proposal constituted a offer that FACC could have accepted. *Rhenalu v. Alcoa,*
 9 *Inc.*, 224 F. Supp. 2d 773, 802 (D. Del. 2002) (“[A] bid made in response to an invitation for bids is
 10 considered to be an offer.”); *see also* Restatement (Second) of Contracts § 28, cmt. c (“[B]idders on both
 11 prime contract and subcontract make offers when they submit bids”); Richard A. Lord, *Williston*
 12 *on Contracts* § 4.10 at 338-39 (4th ed. 1990) (“[A]n ordinary advertisement for bids or tenders is not
 13 itself an offer, but the bid or tender is an offer”).²

14 Lockheed’s evidence meets the clear and convincing evidence standard.³ Eveline Gottzein, head
 15 of MBB’s Control and Simulations Department from 1963 to 1993, has supplied a declaration in which
 16 she states that, “[a]round late 1980 or early 1981, [FACC] asked MBB to provide a proposal for
 17 development of the [ADCS] system for INTELSAT VI.” Decl. of Eveline Gottzein in Support of On-
 18 Sale Mot. (“Gottzein Decl.”), ¶ 3.⁴ In response to the request, “MBB developed a detailed proposal”
 19 and “provided this proposal to FACC” in May 1981. *Id.* at ¶ 4. A declaration from Ernest Astin, the
 20 “subsystem lead engineer” for attitude control systems for the INTELSAT VI satellite platform at
 21 FACC, confirms Gottzein’s statements. Astin’s declaration states that FACC submitted a request for
 22

23 ²In considering questions about the on-sale bar, the Federal Circuit has cited to *Williston* with
 24 approval. *See Linear Tech. Corp. v. Micrel, Inc.*, 275 F.3d 1040, 1050 (Fed. Cir. 2001).

25 ³SSL does not appear to contest that the MBB Proposal was submitted in response to a request
 26 from FACC. In its opposition brief to Lockheed’s motion for summary judgment of invalidity based
 27 on § 102(f), SSL states that “MBB submitted its proposal in response to a request for a proposal.” Pl.
 28 Br. in Oppo. to Inventorship Mot., at 6.

⁴SSL has filed objections to the declarations of Gottzein and Astin. In light of the fact that the
 Court is denying Lockheed’s summary judgment motion, the Court DISMISSES these objections as
 moot.

1 proposal to MBB in 1980 or 1981, and that MBB responded in May 1981. Decl. of Ernest S. Astin in
2 Support of On-Sale Mot. (“Astin Decl.”), ¶¶ 4-5. Lockheed has provided both the FACC request for
3 proposal and the MBB response. *See* Decl. of George A. Riley in Support of On-Sale Mot. (“Riley On-
4 Sale Decl.”), Exh. 1 (MBB Proposal), 2 (FACC request for proposal); Astin Decl., ¶¶ 4, 6 (identifying
5 MBB Proposal and FACC request for proposal); Gottzein Decl., ¶¶ 5-7 (identifying MBB Proposal).
6 In addition, Lockheed has supplied a declaration from Roger Rusch, FACC’s INTELSAT VI Program
7 Manager. Decl. of Roger J. Rusch In Support of On-Sale Reply (“Rusch Decl.”), ¶ 1. Rusch’s
8 declaration supplies a detailed description of the planning process for the INTELSAT VI bid, and
9 identifies MBB as one of the “subcontract team members” for the INTELSAT VI bid. *Id.* at ¶ 3. Both
10 Rusch and Astin state that the MBB proposal was intended to be a definite offer to build the ADCS for
11 the INTELSAT VI. *See* Astin Decl., ¶ 8 (“FACC considered the MBB Proposal to be a definite offer
12 for the ADCS to be built for the INTELSAT VI satellite platform.”); Rusch Decl., ¶ 15 (“[FACC]
13 considered MBB’s subcontracting bid, received on May 26, 1981, to be a firm offer, in complete and
14 definite form, for an ADCS for Intelsat VI.”).

15 SSL provides a number of reasons why the MBB Proposal should not be construed as an offer
16 for sale. First, SSL argues that the MBB Proposal is missing key terms, such as price, quantity, and date
17 and time of delivery. This argument is not convincing. While courts have found that the details plaintiff
18 points to may be sufficient to create a offer, no court has ruled that those terms are required. *See, e.g.,*
19 *Linear Tech*, 275 F.3d at 1052 (purchase orders were sufficiently definite to create an enforceable
20 contract because they included quantity terms and clearly identified the product); *Rhenalu*, 224 F. Supp.
21 2d at 773 (“Generally, mere price quotations without other contractual terms (time and place of delivery,
22 terms of payment, etc.) do not constitute offers.”). In addition, SSL’s argument compares apples to
23 oranges. Lockheed does not assert that MBB offered to sell FACC a tangible product; rather, Lockheed
24 argues that MBB responded to FACC’s request for proposals in connection with its bid on the
25 INTELSAT VI contract. Thus, terms such as quantity, as well as time and place of delivery, simply are
26 inapposite to the question whether SSL’s offer was a commercial offer for sale.

27 As for the price of the MBB ADCS, Lockheed has submitted substantial evidence that the MBB
28 Proposal was accompanied by a cost proposal. Although Lockheed has not produced this cost proposal,

the Court finds that Lockheed has established by clear and convincing evidence that such a cost proposal existed. The strongest evidence of the cost proposal comes from Rusch's declaration, which states that FACC "expressly requested that each of its subcontractor team members provide price quotations for their respective Intelsat VI systems at the same time as their respective technical proposals." *Id.* at ¶ 7. Rusch continues, "[i]n particular, [FACC] requested that MBB provide a price quotation for the Intelsat VI [ADCS] at the same time as it provided its technical proposal for the ADCS. Thus, I am confident that [FACC] would have received MBB's price quotation for the Intelsat VI ADCS at the same time as its technical proposal." *Id.* Rusch also states in his declaration that the INTELSAT VI team members, which included MBB, signed Memoranda of Understanding ("MOUs") with FACC. *Id.* at ¶ 8. This is confirmed by a document drafted in 1981 that appears to promote FACC over Hughes Aerospace. The document states, "Written memoranda-of-understanding define agreements with each team member relative to INTELSAT VI program content and negotiated price." *Id.*, Exh. A, at 48. The purpose of the MOUs was to "outline[] the role of each of the team members, including the scope of the work to be done and price to be paid." *Id.* at ¶ 8. Finally, Rusch states in his declaration that, according to his business diary, FACC performed "cost reviews" on April 20, 1981, and again on June 2, 3, 4, and 5, 1981. *Id.* at ¶¶ 13-14. Rusch further states that he believes FACC "must have received cost estimates from MBB and the other subcontractors . . . by at least April 20, 1981," and that FACC "reviewed the costs of all of the Intelsat VI subsystems on [June 2, 3, 4, and 5, 1981], including the cost of the Intelsat VI ADCS to be provided by MBB." *Id.*; *see also id.*, Exh. B.

Rusch's declaration is supported by both Astin and Gottzein. Astin's declaration states that "[in] connection with its Proposal, MBB also quoted cost information to FACC for building and implementing the ADCS specified in its proposal. . . . I personally received this cost information from MBB." Astin Decl., ¶ 7. Gottzein's declaration states that MBB "produced [an informal] cost analysis for producing, testing and delivering the INTELSAT VI ADCS," and that MBB "would have prepared a formal cost proposal based on our internal cost analysis." Gottzein Decl., ¶ 8. Lockheed has produced the informal cost analysis that Gottzein refers to. *See* Gottzein Decl., ¶ 8; Supp. Decl. of George A. Riley in Support of Pl. On-Sale Mot. ("Riley Supp. On-Sale Decl."), Exh. 1.

SSL's second reason why the MBB Proposal should not be construed as an offer is that the MBB

1 Proposal evidences an intent not to be bound because it begins with the language “[T]his proposal is
2 written in draft form, because FACC anyway will rewrite the complete proposal and perform the final
3 illustrations.” Riley On-Sale Decl., Exh. 1, at LMC-S 00003. SSL argues that this language is
4 inconsistent with an intent to be bound. The Court, however, finds this language fully consistent with
5 the submission of a subcontractor bid; the language merely clarifies that FACC will submit a
6 comprehensive proposal, containing all the accepted subcontractor submissions, for the INTELSAT VI
7 project.⁵

8 The Court finds that Lockheed has submitted clear and convincing evidence that MBB intended
9 to be bound by the its proposal. As the declarations above, and SSL’s own admissions, make clear,
10 MBB submitted its proposal in response to a request for proposal by FACC. This alone indicates an
11 intent to be bound. That MBB intended its proposal as an offer is corroborated by considerable
12 evidence. Most convincing to the Court is the description in Rusch’s declaration regarding the process
13 through with bids were submitted. Rusch’s declaration establishes that the subcontractor bids were
14 created through a detailed process that involved significant consultation between MBB and FACC.
15 Thus, it is clear to the Court that MBB was fully aware of the purpose of its proposal and intended that
16 its proposal, if it was found to be acceptable, would be used in FACC’s bid on the INTELSAT VI.
17 Finally, the level of detail of the MBB proposal itself suggests that it was intended to be a firm offer.
18 The proposal spans 200 pages, and contains a great deal of information, including detailed diagrams,
19 descriptions of needed equipment, and test data.

24
25 ⁵SSL also argues that the Court should not rely on the Astin declaration. A declaration from
26 Richard Westall, a former employee at FACC responsible for “international procurements of satellite
27 hardware and subsystems,” states that “Astin was involved in the *technical* evaluation of the MBB
28 proposal” and did “not have any authority with respect to whether the MBB Proposal could or could not
be accepted or rejected.” Decl. of Richard J. Westall In Oppo. to Def. Mots., ¶ 2 (emphasis in original).
Westall also states that the MBB Proposal “was not capable of being accepted by Ford as submitted,”
without providing any basis for this legal conclusion. *Id.* at ¶ 3. In light of the Rusch declaration, the
Court finds that Lockheed has fixed any deficiencies in Astin’s declaration.

Plaintiff's arguments fail to raise any issues of fact regarding whether the MBB Proposal was a commercial offer of sale. Thus, the Court finds that Lockheed has established by clear and convincing evidence that the MBB Proposal was an offer for sale.⁶

B. Disclosure of Claims of '375 Patent

The parties agree that, in order to trigger the on-sale bar, an invention must disclose all elements of the patent at issue. *See Group One, Ltd. v. Hallmark Cards, Inc.*, 254 F.3d 1041, 1045-46 (to invoke on-sale bar, challenger must prove that the subject matter of the sale "fully anticipated the claimed invention").

Lockheed argues that the MBB proposal discloses all claims of the '375 patent. In support of its argument, Lockheed relies on the declaration of Eveline Gottzein.⁷ In her declaration, Gottzein walks through the claims of the '375 patent and compares them to components in the MBB Proposal, concluding that each claim is disclosed by the MBB Proposal. Gottzein's declaration is substantially dependent upon the diagrams in the MBB Proposal, and refers to the proposal's text only sparingly.

The Court finds that Gottzein's declaration is strong evidence in support of Lockheed's argument. Gottzein worked for MBB as the head of its Control and Simulations department for 30 years, developing attitude control systems for over 40 satellites. Further, Gottzein was personally

⁶35 U.S.C. § 102(b) also requires that an invention be on sale in this country. Plaintiff does not argue that the MBB proposal did not occur in the United States. *See In re Caveney*, 761 F.2d 671, 677 (Fed. Cir. 1985) (offer created in foreign country but sent to United States constitutes offer for sale in this country under § 102(b)).

⁷SSL argues that the Gottzein declaration is inadmissible and therefore may not be considered on summary judgment. *See* Fed. R. Civ. P. 56(e) (requiring evidence used on summary judgment to be admissible). In support of this argument, SSL argues that Gottzein has not been designated as an expert, and is therefore not qualified to testify at trial, rendering her declaration inappropriate for summary judgment. *See* Fed. R. Civ. P. 26(a)(2) (requiring disclosure of identities of trial experts); Fed. R. Civ. P. 37(c)(1) (stating that a party who, "without substantial justification," fails to disclose information pursuant to Rule 26 is prohibited from using that information at trial). SSL's argument, however, overlooks the fact that Rule 37(c)(1) only applies where a party lacks a "substantial justification" for the nondisclosure, and allows the evidence to be admitted when the nondisclosure was "harmless." Here, Lockheed has represented that it only recently learned of Gottzein's existence. On-Sale Mot. at 1; *cf.* Gottzein Decl., ¶ 6 ("In July 2005, I met with attorneys for Lockheed Martin Corporation . . ."). Thus, it appears that Lockheed likely had a substantial justification for the nondisclosure. In addition, a trial date has not yet been set in this matter. Thus, in all likelihood Lockheed's nondisclosure was completely harmless. Accordingly, the Court will consider the Gottzein declaration.

involved in the development of the MBB Proposal. Thus, Gottzein is intimately familiar with the technology of the '375 patent generally, and the MBB Proposal specifically.

The Court, however, finds that there remains an issue of fact on this issue, for the following reasons. First, the Court finds that the Gottzein declaration is insufficient to satisfy, as a matter of law, the high evidentiary standard that defendant must meet. As an initial matter, Gottzein's declaration is not phrased in terms of what would be apparent to one of ordinary skill in the art. *See In re Spada*, 911 F.2d 705, 708 (Fed. Cir. 1990) (to anticipate, "the [prior art] reference must describe the applicant's claimed invention sufficiently to have placed a person of ordinary skill in the field of the invention in possession of it."). More importantly, while her declaration states that all claims of the '375 patent are disclosed by the MBB Proposal, her explanations are rather limited. In many instances, Gottzein does not disclose "in detail how each claim element is disclosed in the prior art reference." *Schumer v. Laboratory Computer Sys., Inc.*, 308 F.3d 1304, 1316 (Fed. Cir. 2002). Rather, she states her conclusion, and justifies that conclusion by pointing only to technical diagrams, the meaning of which is by no means self-evident to the Court. *See, e.g.*, Gottzein Decl., ¶¶ 21, 23-24 (referring Court to figures in MBB Proposal). Given the highly technical subject matter of the '375 patent, the Court finds it inappropriate to accept the Gottzein declaration as adequate.⁸ *See Schumer*, 308 F.3d at 1316 (stating that a court should not "attempt to interpret confusing or general testimony to determine whether a case of invalidity has been made out, particularly at the summary judgment stage.").

The Court also finds summary judgment inappropriate because SSL has raised an issue of

⁸As described by defendant, the MBB Proposal is 200 pages long and consists of vast amounts of highly technical information. While, as defendant has pointed out, portions of the MBB Proposal are highly reminiscent of the '375 patent, much of the proposal is not directly relevant to the specific invention the patent describes. To gain a thorough understanding of the MBB Proposal, the Court must rely on expert witnesses to sift through the MBB Proposal and determine what information is relevant to the case at hand. The difficulty of such a situation was anticipated even before the development of satellites:

CASSIUS: Did Cicero say any thing?

CASCA: Ay, he spoke Greek.

CASSIUS: To what effect?

CASCA: Nay, an I tell you that, Ill ne'er look you i' the face again: but those that understood him smiled at one another and shook their heads; but, for mine own part, it was Greek to me.

William Shakespeare, *Julius Caesar*, Act I, Scene II.

1 material fact. SSL has submitted a declaration from Dr. Marshall H. Kaplan, who concludes that “[t]he
 2 MBB Proposal does not disclose or describe each element of the invention claimed in the ’375 patent”
 3 because “[n]owhere in the MBB Proposal does the proposal describe storing prior to the stationkeeping
 4 maneuver a value representative of an estimated disturbance torque.” *Id.* at ¶ 20.1; *see also id.* at 20.2-
 5 20.4 (describing lack of a storing step in MBB Proposal in connection with other claims of ’375 patent).
 6 Although the Court does not find SSL’s argument particularly convincing,⁹ it is sufficient to create an
 7 issue of fact.

8 9 **C. Ready for Patenting**

10 The final element necessary to trigger the on-sale bar is proof that the invention was “ready for
 11 patenting.” *Enzo Biochem, Inc. v. Gen-Probe, Inc.*, 424 F.3d 1276, 1281 (Fed. Cir. 2005). This
 12 condition may be satisfied “in at least two ways: by proof of reduction to practice before the critical
 13 date; or by proof that prior to the critical date the inventor had prepared drawings or other descriptions
 14 of the invention that were sufficiently specific to enable a person skilled in the art to practice the
 15 invention.” *Pfaff*, 525 U.S. at 67-68. Lockheed argues that both conditions are satisfied here.

16 17 **1. Reduction to Practice**

18 Lockheed argues that the MBB Proposal actually reduced the invention described in the ’375
 19 patent to practice. “In order to establish an actual reduction to practice, the inventor must prove that:
 20 (1) he constructed an embodiment or performed a process that met all the limitations of the interference
 21 count; and (2) he determined that the invention would work for its intended purpose.” *Taskett v.*

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 23 ⁹In section 1.6.7.10 of the MBB proposal, the proposal discusses a “telecommand” sent by a
 24 “databurst” that may contain “bias values.” Riley On-Sale Decl., Exh. 1, at LMC-S 00180. In her
 25 declaration, Gottzein explains that this refers to a command bias, calculated on the ground, and
 26 communicated to the ADCS through the satellite’s telemetry and telecommand subsystem. Gottzein
 27 Decl., ¶ 20. The MBB proposal further states that “[t]he ADCE stores the data burst and decodes the
 28 meaning” Riley On-Sale Decl., Exh.1, at LMC-S 00180; *see also id.* at LMC-S 00181 (“The
 analog values are consecutively converted to digital words during the time without TLM interrogation
 and stored in registers which are linked to the other digital data.”). Thus, it appears that the MBB
 Proposal does contemplate that the bias data is stored prior to the attitude maneuver. The Court’s
 understanding, however, is not based upon what one skilled in the art would have known. Lockheed
 has not conclusively demonstrated that one skilled in the art would have understood the MBB Proposal
 to include storage. Summary judgment is therefore inappropriate.

1 *Dentlinger*, 344 F.3d 1337, 1340 (Fed. Cir. 2003).¹⁰

2 However, Lockheed has provided no evidence that MBB created an embodiment of the proposed
3 ADCS design. Instead, Lockheed argues that the amount of test data contained in the MBB Proposal
4 demonstrates that the invention was reduced to practice. There are two problems with this argument.
5 First, Lockheed's argument relies on too many inferences to be accepted at the summary judgment stage.
6 There are certainly other plausible explanations for the test data contained in the MBB Proposal other
7 than MBB's construction of a working prototype ADCS. Second, Gottzein's declaration never refers
8 to any actual testing of a physical product. Rather, Gottzein states that MBB tested the design through
9 "theoretical analytical techniques" and "analog computer simulation." Gottzein Decl., ¶¶ 39-40. These
10 statements suggest that MBB never produced an embodiment of its invention.

11 Thus, the Court finds that issues of fact remain concerning whether MBB reduced the invention
12 to practice.

13 2. Enablement

14 As an alternative to reduction to practice, an invention is ready for patenting if "the inventor had
15 prepared drawings or other descriptions of the invention that were sufficiently specific to enable a
16 person skilled in the art to practice the invention." *Pfaff*, 525 U.S. at 67-68. Lockheed argues that the
17 MBB Proposal meets this standard.

18 In support of its argument, however, Lockheed points to the MBB Proposal only in a general
19 manner. It has provided no testimony concerning what a person of ordinary skill in the art would have
20 understood the MBB Proposal to enable. The closest Lockheed comes to providing any evidence on
21 this subject is a declaration from SSL's expert, Marshall Kaplan. In that declaration, dated November
22 15, 2002, Kaplan stated, "[e]ach of the structures used to sense the spacecraft's position, detect any
23 attitude error, and transmit or store the detected error are described in Figures 2A and 2B [of the '375
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27 ¹⁰Lockheed argues that "Reduction to practice does not require that a party actually build a
28 proposed system." Def. Br. at 23. The only citation Lockheed offers in support of this contention,
however, is *Taskett*, which clearly requires the construction of an embodiment.

1 patent.]” Riley Supp. On-Sale Decl., Exh. 3, at 10.¹¹ These are precisely the figures that Lockheed has
 2 seized on in its motion.

3 While the MBB Proposal appears extremely detailed, and the technical diagrams seem
 4 substantially similar to those in the ’375 patent, the Court cannot grant summary judgment without
 5 additional evidence. Lockheed, in effect, requests that the Court base its judgment on the comparison
 6 of a few technical diagrams, and on the length and detail of the MBB Proposal. Such an action by the
 7 Court would clearly be inappropriate, especially at the summary judgment stage. Lockheed must
 8 provide evidence of how one of ordinary skill in the art would understand the MBB Proposal.

9 10 **II. Inventorship**

11 Lockheed’s second motion for summary judgment claims that Chan was not the actual inventor
 12 of the invention disclosed in the ’375 patent. To prevail on this point Lockheed must establish “(1) prior
 13 conception of the invention by another and (2) communication of that conception to the patentee that
 14 is sufficient to enable [him] to construct and successfully operate the invention.” *Int’l Rectifier Corp.*,
 15 361 F.3d at 1366. Although Lockheed has provided evidence that raises serious questions about
 16 whether Chan in fact was the inventor of the ’375 patent, the high burden Lockheed must meet at this
 17 stage renders summary judgment inappropriate.

18 19 **A. Prior Conception**

20 Lockheed argues that the MBB Proposal demonstrates that scientists at MBB conceived of the
 21 invention described in the ’375 patent well before Chan began his work on the ’375 patent. Although
 22 Lockheed has submitted substantial evidence in support of its position, the Court finds that an issue of
 23 fact remains.

24 Lockheed’s evidence establishes that Chan had access to the MBB Proposal well before he
 25 purports to have conceived of his invention. FACC received the MBB Proposal in 1981. Decl. of

26
 27 ¹¹Lockheed’s reply brief also asserts that Kaplan states in his declaration, “the control loop
 28 diagram at Figures 2A and 2B would make it clear to a person of ordinary skill that detected errors
 would be fed through the feedback network for summing with the prebias value and subsequent further
 modulation.” Def. Mot. at 12. Lockheed has not provided this page to the Court.

George A. Riley in Support of Inventorship Mot. (“Riley Inventorship Decl.”), Exh. 1; Astin Decl., ¶ 6; Gottzein Decl., ¶ 4. At that time, Chan was a scientist at FACC. Supp. Decl. of Ernest S. Astin in Support of Inventorship Mot., ¶ 7. Shortly after FACC received the MBB Proposal, it formed a team, known as the “Red Team,” to evaluate the technical adequacy of its proposed ADCS design. *Id.* at ¶¶ 7, 9. Chan was a member of the Red Team, and was assigned to “verify[] the control loop designs from MBB’s proposed ADCS.” *Id.* at ¶ 10. As SSL has provided no evidence contrary to these assertions, the Court finds that Lockheed has established, by clear and convincing evidence, that Chan reviewed the MBB Proposal shortly after FACC received it.

SSL argues, however, that Lockheed has not established that Chan reviewed the MBB Proposal prior to the time he conceived of the invention. The Court agrees that there remains an issue of fact on this point. Lockheed’s evidence certainly strongly suggests that Chan reviewed the MBB Proposal before he conceived of the invention: FACC received the MBB Proposal in May 1981, and the Red Team was convened “shortly thereafter,” but Chan does not claim to have conceived of the invention disclosed by the ’375 patent until November 1981 at the earliest. In connection with another project known as ARABSAT, Chan circulated a memorandum on November 11, 1981, suggesting that the ARABSAT control system design was insufficient, and describing an alternative solution. Riley Inventorship Decl. Decl., Exh. 7. This alternative solution was the genesis of the ’375 patent. *See* Supp. Decl. of George A. Riley in Support of Inventorship Decl., Exh. 1 (“In November 1981, Dr. Chan identified a way to reduce attitude errors caused by disturbance torques during stationkeeping maneuvers.”); Exh. 2 (Q: “So as far as you know . . . November of 1981 was the earliest date that you had the idea for the “’375 invention.” A: “That’s correct.”). Although SSL argues that the date of conception can only be restricted to “prior to March 19, 1982,” Chan’s own deposition testimony shows that November 1981 was the earliest he conceived of the invention.

Although Lockheed’s evidence is convincing, the Court finds that an issue of fact remains. Chan testified at his deposition that he was the sole inventor of the ’375 patent. Rosen Decl., Exh. 4. In addition, SSL has produced evidence to demonstrate that MBB and FACC cooperated in creating the design contained in MBB’s proposal. Westall Decl., ¶ 4. Lockheed argues that Chan’s testimony is insufficient because it does not reflect Chan’s understanding that he conceived of the invention. The

1 Court, however, finds the testimony sufficient to create a genuine issue of fact. *See Anderson*, 477 U.S.
2 at 255 (credibility determinations are inappropriate for summary judgment).

3 Accordingly, the Court finds that an issue of fact remains regarding whether Chan actually
4 conceived of the invention disclosed by the '375 patent.

5
6 **B. Communication**

7 As mentioned above, to establish that Chan was not the inventor of the invention described in
8 the '375 patent, Lockheed must establish that the MBB Proposal communicated its conception of the
9 invention to Chan in a manner "sufficient to enable [him] to construct and successfully operate the
10 invention." *Int'l Rectifier Corp.*, 361 F.3d at 1366. For the for the reasons discussed in the section of
11 this order concerning the on-sale bar, an issue of material fact remains regarding whether the MBB
12 Proposal was enabling.

13
14 **CONCLUSION**

15 For the foregoing reasons and for good cause shown, the Court hereby DENIES Lockheed's
16 motions for summary judgment of invalidity. [Docket ## 649, 670].

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18 **IT IS SO ORDERED.**

19 Dated: February 6, 2006

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21 SUSAN ILLSTON
22 United States District Judge
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